

METHOD AND APPARATUS FOR
PORTFOLIO TRADING USING MARGIN

RELATED APPLICATIONS

[0001] This application claims the benefit of priority of U.S. Provisional Patent Application 60/404,607, filed August 20, 2002, entitled “Method and Apparatus For Portfolio Trading Using Margin,” by the same inventor.

[0002] The present invention is also related to U.S. Patent Application No. 09/038,158, entitled “Method and Apparatus for Enabling Smaller Investors or Others to Create and Manage a Portfolio of Securities or Other Assets or Liabilities on a Cost Effective Basis,” filed on March 11, 1998. The present invention also is related to U.S. Patent Application No. 09/139,020, entitled “Method and Apparatus for Enabling Smaller Investors or Others to Create and Manage a Portfolio of Securities or Other Assets or Liabilities on a Cost Effective Basis,” filed on August 24, 1998. In addition, the present invention is related to U.S. Patent Application No. 09/339,299, entitled “Method and System for Investing in a Group of Securities that Are Selected Based on the Aggregated, Individual Preferences of Plural Investors,” filed on June 24, 1999. Furthermore, the present invention is related to U.S. Patent Application No. 09/572,694, entitled “On-Line Investment Club,” filed on May 16, 2000. Moreover, the present invention is also related to U.S. Provisional Patent Application No. 60/341,459 entitled “Portfolio Manager With Automated Investment Deselection,” filed December 13, 2001; U.S. Provisional Patent Application No. 60/332,348 entitled “Method and Apparatus For Creating Investment Advice Marketplace,” filed November 15, 2001; U.S. Provisional Patent Application No.

60/332,351 entitled "Method and Apparatus For Providing Investment Advice to Multiple Investors, filed November 15, 2001; U.S. Provisional Patent Application No. 60/333,982 entitled "Method and Apparatus For Rebalancing an Investment Portfolio Using A Portfolio Investment System," filed November 28, 2001.

[0003] Each of these applications was filed by the inventor of the present invention. U.S. Patent Application Nos. 09/038,158; 09/139,020; 09/339,299 and 09/572,694 are each hereby incorporated by reference as if repeated herein in their entirety, including the drawings. In addition, U.S. Provisional Patent Application Nos. 60/332,348; 60/332,351; 60/333,982 and 60/341,459 are each hereby incorporated by reference as if repeated herein in their entirety, including the drawings.

FIELD OF THE INVENTION

[0004] The invention described herein relates generally to methods and apparatuses for investing in investment portfolios as a whole, wherein the underlying individual investments are important only in as they contribute to the overall characteristics of the portfolio.

BACKGROUND OF THE INVENTION

[0005] The above mentioned patent applications disclose several methods and apparatuses for enabling individual or smaller investors to create and invest in diversified investment portfolios from the first investment in a cost-effective manner.

[0006] As investors begin viewing their investment portfolios as a single entity, with specific characteristics and performances, they will be more interested in the actual

portfolio characteristics rather than the characteristics of the underlying investments. Typically, to modify the portfolio characteristics by modifying the underlying investments may cause tax consequences and other undesirable effects.

[0007] The present invention is therefore directed to the problem of developing a method and apparatus for enabling investors to readily modify the investment characteristics of their investment portfolio without changing the actual investments in the portfolio.

SUMMARY OF THE INVENTION

[0008] The invention solves these and other problems by providing an interface to an automated portfolio manager system that enables an investor or portfolio manager to quickly adjust the underlying risk of the entire portfolio without incurring any tax liability.

[0009] According to one aspect of the present invention, the user interface enables the user to adjust the risk (e.g., beta) of a portfolio of investments without adding or deleting investments from the portfolio by purchasing more or less of the entire portfolio on margin, thereby increasing or decreasing the riskiness of the portfolio.

[0010] According to one aspect of the present invention, a predetermined portfolio of investments is provided to all investors. Each investor's desired risk/reward characteristic for his or her portfolio is accommodated by determining an appropriate amount of the predetermined portfolio to purchase on margin or an appropriate amount of the user's funds to place in cash reserves to modify an actual risk/reward characteristic of the portfolio so that it matches the investor's desired risk/reward characteristic without changing the underlying investments. Moreover, this modification can be accomplished

by interacting with the user in a simple manner, e.g., via a graphical user interface, that helps the user select a particular risk/reward characteristic, which is then used to calculate the above required values. Furthermore, the complexities of purchasing on margin and determining the appropriate cash reserves are hidden from the user, thereby enabling the user to focus on the portfolio characteristics rather than the trading exigencies.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG 1 depicts a flow chart of an exemplary embodiment of a method for purchasing an investment portfolio according to one aspect of the present invention.

[0012] FIG 2 depicts a flow chart of an exemplary embodiment of a method for monitoring an investment portfolio once set up in accordance with the embodiment of FIG 1.

[0013] FIG 3 depicts an exemplary embodiment of an apparatus for enabling a user to manage and trade portfolios of assets, rights and/or liabilities using margin according to one aspect of the present invention.

[0014] FIG 4 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to create a new portfolio of assets, rights and/or liabilities with user specifiable leverage as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0015] FIG 5 depicts an exemplary embodiment of a web page for use in the graphical user interface set forth in FIG 4.

[0016] FIGs 6 and 7 depict an exemplary embodiment of a graphical user interface

for enabling a user to quickly and easily set the amount of margin to be used in trading portfolios of assets, rights and/or liabilities according to still another aspect of the present invention.

[0017] FIGs 8-10 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 4.

[0018] FIG 11 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to purchase a pre-existing portfolio of assets, rights and/or liabilities with pre-existing leverage as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0019] FIGs 12-14 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 11.

[0020] FIG 15 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to purchase a pre-existing portfolio of assets, rights and/or liabilities without leverage (even though a prior purchase may have been made using leverage) as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0021] FIGs 16-19 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 15.

[0022] FIG 20 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to sell a pre-existing portfolio of assets, rights and/or liabilities which may have been purchased using leverage as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0023] FIGs 21-25 depict exemplary embodiments of web pages for use in the

graphical user interface set forth in FIG 20.

[0024] FIG 26 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to trade a pre-existing portfolio of assets, rights and/or liabilities using leverage as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0025] FIGs 27-33 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 26.

[0026] FIG 34 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to open an account in which margin may be used to trade a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0027] FIG 35 depicts an exemplary embodiment of a web page for use in the graphical user interface set forth in FIG 34.

[0028] FIG 36 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to add an additional account to an existing account in which margin may be used to trade a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0029] FIG 37 depicts an exemplary embodiment of a web page for use in the graphical user interface set forth in FIG 36.

[0030] FIG 38 depicts an exemplary embodiment of a flow chart of web pages for

interacting with a user to edit a user's margin profile when managing or trading a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0031] FIGs 39-41 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 38.

[0032] FIG 42 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to change a user's margin settings when managing a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0033] FIG 43 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to change a user's margin settings when managing a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0034] FIGs 44-46 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 43.

[0035] FIG 46 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to enable a user to grant access to the user's margin profile to a third party when managing and/or trading a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0036] FIG 47 depicts an exemplary embodiment of a web page for use in the graphical user interface set forth in FIG 46.

[0037] FIG 48 depicts an exemplary embodiment of a flow chart of web pages for

interacting with a user to enable a user to view the user's account summary and available margin when managing a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0038] FIGs 49-53 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 48.

[0039] FIG 54 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to enable a user to view the user's margin and folio summary when managing a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0040] FIGs 55-58 depict exemplary embodiments of web pages for use in the graphical user interface set forth in FIG 54.

[0041] FIG 59 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to enable a user to view/change the user's proportion and margin when managing a portfolio of assets, rights and/or liabilities as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0042] FIG 60 depicts an exemplary embodiment of a flow chart of web pages for interacting with a user to enable a user to determine a status of or resubmit an order to trade a portfolio of assets, rights and/or liabilities using leverage as part of a graphical user interface for use in the apparatus of FIG 3 according to another aspect of the present invention.

[0043] FIG 61 depicts an exemplary embodiment of a web page for use in the

graphical user interface set forth in FIG 60.

DETAILED DESCRIPTION

[0044] Any reference herein to “one embodiment” or “an embodiment” means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. Use of the phrase “in one embodiment” in various places in the specification is not necessarily all referring to the same embodiment.

[0045] As used herein, the phrase “asset/right/liability” refers to any tradable commodity or item of value in which there exists a market, however small, for trading. Examples include: securities, equities, bonds, futures, mutual funds, derivatives, currencies (both national and foreign), commodities, insurance contracts, mortgages, bonds, high-yield debt, foreign debt, convertible debt, notes, pollution rights, development rights, leases, loans, real estate investment trusts, etc. Although the computer-based system of the present invention can be used for any market tradable asset, right, and/or liability, for brevity the discussion herein relates primarily to its use in connection with tradable instruments or securities, and particularly to stocks. The phrase “assets, rights or liabilities” refers to any collection of assets, rights or liabilities.

[0046] As used herein, the phrase “manager” refers to any person or group of persons who manages the assets of a collectively owned investment account. For example, a manager can be one member of an investment club or multiple members of an investment club acting in concert. Furthermore, all the members collectively could perform the manager’s role. In addition, a manager could be a professional, as in the case of a

professional asset manager that is employed by an investment club, mutual fund, or hedge fund. A manager can also be someone whose advice the collective account follows, etc., but who is not actually employed by the collectively owned account. Moreover, a manager can manage one or more collectively owned accounts.

[0047] One aspect of the present invention provides a simple user interface through which a user (e.g., either the investor himself or a manager) can purchase entire portfolios of assets, rights and/or liabilities on margin. By enabling a user to quickly and simply provide a margin to equity ratio to the system for creating, managing and trading portfolios of assets, rights and/or liabilities the present invention brings this high-powered investment tool to the smaller and individual investor for the first time.

[0048] According to an exemplary embodiment of the present invention, a user interface is provided that enables an investor or manager of an investment account to modify the risk (i.e., beta) of an investment portfolio in which the investor or manager desires to invest. Once the investor or manager has established the level of risk that the investor or manager prefers, the system calculates the necessary level of leveraging required to increase the beta of the portfolio to the established level. By purchasing some of the portfolio on margin, the inherent riskiness of the portfolio is increased. The riskiness of the portfolio is a function of the combined risk of the underlying investments, the amount of the investor's principal and the total investment (i.e., $\beta = f(\beta_p, P, I)$) where β is the resulting riskiness of the portfolio investment, β_p is the combined riskiness of the underlying investments, P is the principle of the investment made by the investor, and I is the overall investment amount, which includes P plus the amount borrowed.

[0049] Turning to FIG 1, shown therein is an exemplary embodiment of a method for providing a portfolio investment system to multiple investors using a single predetermined investment portfolio having a known risk/reward characteristic while enabling each investor to obtain a resulting investment portfolio that has a risk/reward characteristic specified by the investor. In this exemplary embodiment, the system has a predetermined investment portfolio that includes multiple investments, each of which has preset weights relative to the entire portfolio. The predetermined investment portfolio has a certain risk/reward characteristic, which may or may not be desired by a given investor. The system also uses a predetermined less risky investment vehicle, such as a cash reserve or money market fund with a very low risk/reward characteristic, which can be used in a calculated ratio with some of the user's investment funds to reduce the risk/reward characteristic from its existing value to a lower value. In addition, the system includes a mechanism for enabling each investor to purchase on margin some of the predetermined investment portfolio to increase the risk/reward characteristic to that specified by the user.

The exemplary method operates as follows.

[0050] First, in step 11 the system obtains from the investor (or another user on behalf of the investor, such as a manager of an investment portfolio for an investor) a desired risk/reward characteristic of a resulting portfolio. Of course, the system also obtains other investment information, such as identification information, an investment amount, etc.

[0051] Next, in step 12, the system compares the investor specified risk/reward characteristic with the risk/reward characteristic of the predetermined portfolio.

[0052] If the investor specified risk/reward characteristic is below that of the

predetermined portfolio, then the system must decrease the risk/reward characteristic of the resulting portfolio. This can be accomplished in step 13 by calculating a certain amount of the investor's funds must be placed in the predetermined less risky investment (e.g., cash reserves) so that the overall investment has the investor's desired risk/reward characteristic. By placing some of the investor's funds in the predetermined less risky investment, the resulting investment portfolio's value will fluctuate less relative to the amount invested by the investor, thereby decreasing the resulting investment portfolio's beta (or risk/reward characteristic) as compared to that of the underlying predetermined investment portfolio.

[0053] If the investor specified risk/reward characteristic is above that of the predetermined portfolio, then the system must increase the risk/reward characteristic of the resulting portfolio. This can be accomplished in step 14 by calculating a certain amount of the predetermined portfolio that must be purchased on margin (i.e., on credit) so that the overall investment has the investor's desired risk/reward characteristic. By purchasing some of the predetermined portfolio on margin, the resulting investment portfolio's value will fluctuate more relative to the amount invested by the investor, thereby increasing the resulting investment portfolio's beta (or risk/reward characteristic) as compared to that of the underlying predetermined investment portfolio.

[0054] Once the appropriate amounts of the investor's funds that must be invested in the predetermined portfolio, the less risky investment, if any, and the amount on margin, if any, are calculated, the system then purchases the necessary amounts of each in step 15.

[0055] If desired by an individual investor, a feature can be implemented that tracks the beta of the investor's portfolio and continually modifies the amounts invested in the

predetermined portfolio, the less risky investment and the amount of the predetermined portfolio purchased on margin based on market fluctuations. As these market fluctuations vary outside investor specified parameters, new amounts for each of the three categories can be calculated. Once these amounts are determined, the system can then automatically implement the necessary amounts by investing more of the investor's funds, placing more of the predetermined portfolio in the less risky investment vehicle or purchasing more of the predetermined portfolio on margin. If some of these actions require a sale of an amount of the predetermined portfolio, the system can require investor authorization to proceed to prevent undesirable taxable events. Moreover, the system can notify the investor of an amount of funds that must be infused into the overall investment portfolio to modify the beta to the investor specified level.

[0056] FIG 2 depicts an exemplary embodiment of a method for monitoring an investment portfolio that was established using the embodiment shown in FIG 1. Any such investment portfolio includes potentially three elements – some funds invested in the predetermined portfolio, some funds invested in a less risky investment vehicle, such as cash reserves, and some portion of the investment portfolio purchased on margin. As market updates are received, the beta or risk/reward characteristic of the investor's investment portfolio is recalculated (step 21). The newly calculated beta is then compared against the desired beta (step 22). If the difference between the newly calculated beta and the desired beta lies outside a predetermined threshold, the process continues to step 23, else the process ends or returns to monitoring the beta of the investment portfolio. If the newly calculated beta is above the desired beta, then the process continues to step 24. If the newly calculated beta is below the desired beta, then the process continues to step 25.

[0057] In step 24, there are multiple options. First, if there is any of the investment portfolio that has been purchased on margin, then this margin amount can be decreased to reduce the beta. Depending upon how much the margin amount is, this may reduce the beta to the desired amount or not. If completely reducing the margin amount to zero does not sufficiently reduce the beta to the desired amount, then additional steps need to be taken. Reducing the margin amount requires an infusion of funds to pay off the margin loan. If reducing the margin amount to zero is not possible (or the investor desires to modify the beta without investing additional funds), then the beta can be reduced by transferring funds from the predetermined portfolio to the less risky investment vehicle. This may result in a taxable event. A third alternative is possible. The investor may purchase a certain amount of the less risky investment vehicle to reduce the beta to the desired amount. This third option also requires an infusion of funds.

[0058] In step 25, there are also multiple options to increase the beta to the desired amount. First, some funds can be transferred from the less risky investment vehicle to the predetermined investment portfolio. This may result in a taxable event, depending upon the type of less risky investment vehicle. A second option to increase the beta to the desired amount is to increase the margin amount. This does not require any funds, and therefore may be a preferable option in some cases. A third option to increase the beta to the desired amount is to purchase an additional amount of the predetermined portfolio, assuming that there is some portion of the total investment in the less risky investment vehicle.

[0059] Once the necessary calculations are performed, and the options presented to the investor or the investment manager, the system either: (1) transfers funds between the

predetermined investment portfolio and the less risky investment vehicle; or (2) modifies the margin amount (either by paying off some of the margin loan or purchasing an additional amount of the predetermined investment portfolio on margin); or purchases the necessary amount of the predetermined investment portfolio or the less risky investment vehicle. The process then either ends or returns and recalculates the actual beta based on the latest market conditions or market data.

[0060] Examples of predetermined investment portfolios can include almost any investment portfolio. Some examples include the Dow Jones Industrials, the S&P 500, the Russell 2000 or other market indices. Market sector investments could also be employed if an investor wanted to be invested in a certain class of securities but wanted a different beta than these classes normally exhibited. Socially acceptable securities could also be used as a base from which any desired beta can be obtained.

[0061] Many options exist for the less risky investment vehicle, such as government bonds, money market funds, cash reserves, etc.

[0062] A preset bound on the amount that an individual investor can purchase on margin can be employed to prevent excessive margin purchases. This creates an upper bound on the betas that can be obtained by the system.

[0063] Alternatively, based on a beta of the particular less risky investment, certain very low betas may not be possible. Thus, the less risky investment's beta establishes a floor below which no lower beta can be obtained.

[0064] FIG 3 shows an exemplary embodiment of a system 30 for implementing the above exemplary methods for modifying a risk/reward characteristic of a predetermined portfolio. A money manager (or an investor) provides input to the computer-based

portfolio management system. This input includes portfolio trading orders, risk/reward characteristic preferences, fund transfers, etc. System 30 includes a computer 32 used by the manager to input the manager's information and preferences to the portfolio management system operating on portfolio manager server 41. The manager's preferences are stored in the system database 39 and also by the manager in his database 31. A system operator 42 controls the access and performance of the portfolio manager 41. System 30 includes a communications link via the Internet 34, for example, over which a manager can provide preference information. The communication path to the Internet can include a server 33 and/or an Internet connection via for example, a telephone modem, a cable modem, a cellular modem, and/or a satellite link, etc. Other users 35-38 can also access the portfolio manager 41 and provide portfolio orders, fund transfers and trading preference information. The portfolio management system 41 calculates the margin amount, approves all trades and interacts with a market data system to receive market data, which is used *inter alia* to update the risk/reward characteristic of the individual accounts, as well as those of the predetermined portfolio and the less risky investment vehicle.

User Interface Explained Via Examples

Leverage Slider – Scenario 1

[0065] FIG 4 shows a flow chart 40 of the screens used to interact with the customer to complete the customer's order. Beginning with the "My Accounts" screen 43, the customer selects the choose/build folio link 44, selects "YES" for leverage 45, which opens the leverage slider screen 48. If the user had selected "NO" to leverage, the steps

56-58 (shown in dashes) would have been performed. Inputs to this screen from the system include the beta volatility 46 for the selected folio and the customer's buying power 47. Inputting an equity percentage 49 enables the system to calculate the maximum amount possible 51 for the given transaction. The user is then prompted to enter the amount of the transaction (or to change the equity/leverage ratio) 52. If the customer decides to change the equity/leverage ratio this takes the user to the leverage slider 48. If not, then the preview order screen is shown 53. Moving past this screen submits the buying power changes to the system (i.e., reduces the buying power if the customer has used leverage) 54 and provides the confirmation order screen 55.

[0066] In this example, a customer selects creating a new folio from the "My Account" screen (not shown), which opens the screen 530 shown in FIG 53.

[0067] In this example, the customer selects a ready-to-go (or predetermined) portfolio of assets, rights and/or liabilities from the screen 530 depicted in FIG 53, which in turn opens the screen 50 in FIG 5. To "turbo charge" (i.e., increase the possibility of higher returns) his or her returns, the customer selects using Leverage by clicking on the Leverage Slider button 51 on the prepare order screen 50 shown in FIG 5. This opens the screen 60 shown in FIG 6. This screen 60 includes a bar chart 65, and a graph 62 along with sliders 61 (to change the equity/leverage ratio) and 63 (to change the time view of the graph in 62). Clicking on the prepare order button 64 takes the user to the screen in FIG 8.

[0068] In this example, the customer selects 25% leverage and 75% equity. FIGs 6 and 7 show exemplary user screens (60, 70, respectively) presented to the user in the above process to help the user understand the effects of leverage. A slider bar 61 allows

the user to increase the amount of leverage on the user's order by simply moving the bar up and down the scale. A bar chart 65 showing the respective ratios of equity and leverage is displayed to the user. A plot 62 of the estimated range of returns shows the user the effect on the estimated range of returns due to the leverage. The user can adjust the slider bar 63 on the time scale to view the effect of the estimated range of returns for a given year from the present.

[0069] FIG 7 shows the effect the increase in leverage has on the ratio plot and the estimated range of returns, which was brought about by moving the slider bar 61 from its position in FIG 6 to its position in FIG 7. Note the change in the bar chart 65 and the change in the plot 62. Upon clicking on the prepare order button 64, the user is presented a prepare order screen 80 shown in FIG 8, in which the user can enter the amount of the desired transaction.

[0070] Screen 80 displays the maximum amount 81 the user can purchase based on the previously indicated amount of leverage 82 entered in screen 70. The user is presented a field 83 in which the user can enter the amount of the trade. Clicking on the leverage slider button 84 returns the user to the screen 70 in FIG 7. Upon clicking on the continue button 85 the user is provided a verbal description (e.g., "Understanding Margin" screen 90 shown in FIG 9) of the proposed transaction to ensure the customer understands his or her order using the previously entered leverage ratio, and the previously entered amount of the purchase. Upon clicking on a continue button 91 on the verbal description screen 90, a preview order screen 100 (FIG 10) is presented showing the user the details of the order he or she just entered.

[0071] Screen 100 includes *inter alia* the amount of the trade 101, and the target

leverage 103. Clicking on the place order button 104 submits the order to the system for execution in accordance with the parameters indicated in the preview screen 100.

Clicking on the leverage details button 102 displays the leverage details screen 90.

Clicking on the change preferences button 105 enables the user to modify the trade preferences, which include the trade type (e.g., window trade), order type (e.g., dollar based), cancel order limit (e.g., 5%), and the target leverage (set here in this example as 25%).

Ready-to-go Pre-Leverage Slider – Scenario 2

[0072] In this example, a customer has selected the “easy path” route 111 to creating a portfolio of assets, rights or liabilities. This option enables a user to select a ready-to-go folio, one of which includes ready-to-go pre-leveraged portfolios of assets, rights and/or liabilities. In this example, the user selects one of the ready-to-go pre-leveraged folios. The process 110 is depicted in FIG 11. Upon selecting the easy path 111, the user is permitted to select one of the ready-to-go folios 112, which includes a leveraged ready-to-go folio 113, which receives inputs from the system including beta volatility 114 and buying power 115, based on the user’s credit worthiness. Once the ready-to-go leveraged folio is selected, the user previews the order 116, the buying power is transmitted to the system for updating the customer’s profile/account 117, and the order is confirmed 118.

[0073] Upon selecting the easy path route 111, the user is then able to select one of the ready-to-go folios 112. Ready-to-go pre-leveraged folios are presented to the user 113 based on previously entered beta volatility 114 and the user’s buying power 115 (determined by the system based on, e.g., the user’s credit worthiness). In this example,

the pre-leveraged folio is 25% leveraged. Once selected, the user is presented with the preview and place order screen (step 116) which includes the details of the order for review prior to submission to the system for execution. As part of the preview process, the order and leverage is sent to the system and stored 117, and then when confirmed 118 the order is sent for execution.

[0074] FIG 12 shows the easy start screen 120 that enables the investor to trade upon executing three relatively simple steps: (1) Choosing a way to invest; (2) Selecting or creating a folio; and (3) Saving a folio, test driving a folio or opening an account. In this case, the user decides to choose a ready-to-go folio by clicking on the Choose From our Ready-to-Go Folios link 121, which opens the Step 2 screen 130 shown in FIG 13. In this example, the user wishes to select one of the ready-to-go leveraged folios, which he or she does by clicking on the link 131. Upon selecting a pre-leveraged folio, the user enters the amount of the trade in the normal manner and ultimately is presented with the preview order screen 140, which includes all of the details of the order. Clicking on the submit order button (not shown) submits the order to the system for execution in accordance with the parameters shown in the preview order screen 140.

Easy Trade Buy – Scenario 3

[0075] In this example, the customer places an “easy trade,” in which the customer simply desires to purchase \$2000 of an existing portfolio of assets, rights and/or liabilities. In this example, the user had previously used leverage but now prefers not to use any leverage for this trade. The process flow 150 of this example is shown in FIG 15, which includes starting with my accounts 151, selecting easy trade 152a, selecting buy

cash only 153a, the slider warning 154, skipping the slider screen 155b, choosing all cash or last leverage ratio 164 and the order confirmation 163b. The dashed blocks 152b, 153b, 153c, 155a, 156, 157a, 157b, 158a, 158b, 159, 162, 163a represent unselected screens/options.

[0076] The easy trade screen 160 (FIG 16) is shown to the user, which enables the user to enter the amount of the present transaction in field 166, and indicate whether the transaction is a buy 161, a sell 165 or a sell all 167. For more trading choices, the customer can select the “More Trading Choices” button 169.

[0077] Upon clicking on the preview order button 168, the user is presented with the slider warning screen 170 (FIG 17), which reminds the user that the user previously used leverage with this folio, and enables the user to select leverage 171 (YES) or not 172 (NO).

[0078] Upon clicking on the “NO” button 172, the user is presented with the preview order screen 180 (FIG 18), which shows the details of the present order, including the amount of the purchase 185, and the target leverage 182. In this case, the target leverage 182 is shown as 12.5%, which will be the result of all prior orders after submission of the present order. Clicking on the leverage details button 181 opens the screen 190 shown in FIG 19, which includes all of the details of the present order, such as the buy amount 191, the equity (cash) amount 192, the target margin 193, the total equity 194, the current margin 195, the target percent margin 196 and the net change in cash fund 197.

Easy Trade Sell – Scenario 4

[0079] In this example, the customer desires to place an easy trade, which in this

instance is a sell order of \$100 of a previously purchased portfolio of assets, rights and/or liabilities that was purchased on margin. In this trade, the customer desires not to user the slider. The customer then is presented with the option of paying the leverage/margin down or to put the proceeds into cash. FIG 20 shows the process 200 details of this trade, which starts with the my accounts 201, selection of the easy trade 202, selection of sell, pay debit 203, warning slider 204, skip slider 205, selection of all cash or last leverage ratio 206 and order confirmation 207.

[0080] After inputting \$100 in the amount field 211 on the easy trade screen 210, selecting the sell choice 212 and clicking on the preview order button 213 of the easy trade screen 210 (FIG 210), the user is presented with the slider warning screen 220 (FIG 22) that informs the user that the user previously used the Leverage Slider with this portfolio of assets, rights and/or liabilities, and provides the user the opportunity to use the Leverage Slider again by selecting the “YES” button 222. Upon clicking on the “NO” button 221, the user is shown the Understanding Margin screen 230 (FIG 23), which enables the user to select whether to user the money to pay down the margin or put the proceeds into cash. Upon selecting to use the \$100 to pay down the margin 231 (rather than placing the \$100 into cash 232) and clicking on the continue button 233, the user is provided with the preview order screen 240 (FIG 24), which shows *inter alia* the sell amount 241 and the target leverage 243. Selecting the change preferences button 244 enables the user to modify the trade type, the order type, cancel order limit or the target leverage 243.

[0081] Clicking on the leverage details button 242 opens the screen 250 shown in FIG 25. In this example, the new margin percent is 10.26% after the proposed trade. This

screen 250 shows the sell amount 252, the total sell 253, the sell amount paid to margin 254, the target margin 256, the total equity 255, the current margin 257, and the new percent margin 258.

Advanced Trade – Scenario 5

[0082] In this example, the customer selects to make an advanced trade involving a buy order using the Leverage Slider for an existing portfolio of assets, rights and/or liabilities (i.e., the folio). In this case, the customer had previously purchased the folio using 25% leverage and 75% equity. In this trade, the customer desires to change the folio characteristics so that the folio is 50% leverage and 50% equity.

[0083] FIG 26 shows an overview of the process 260 for this trade example. This includes starting from the My Account 261, selecting the advance trade option 262, opening the leverage slider 265, which receives inputs from the system including the beta volatility 263 and the buying power 264, inputting the dollar amount of the trade or changing the leverage ratio, if any, 266, previewing the order 267, forwarding the buying power changes, if any, to the system 268 and confirming the order 269. The dashed blocks are not selected in this process.

[0084] This process 260 enables the customer to modify the expected risk and returns without changing the proportions in the folio. Upon selecting the Leverage Slider button 271 on the advanced trade screen 270 (FIG 24), the leverage slider screen 280 shown in FIG 28 is displayed. In this case, the previous values for the equity and credit ratios are shown with indicators 281, 283, respectively, e.g., solid lines. Moving the leverage bar 284 up and down the range changes the respective bars in graph 282, but the indicators

281, 283 remain constant showing the prior leverage/equity ratio, as shown in screen 280 of FIG 29, which is the same screen from FIG 28 with the changes due to the movement of the slider bar 284 to the right. Moving the slider bar 286 changes the time view of the graph 285.

[0085] Clicking on the prepare order button 287 opens the screen 300 shown in FIG 30, which enables the customer to enter the amount of the trade in field 303 based on the previously input leverage ratio 301 and calculated buying power 302. Clicking on the leverage slider opens the leverage slider screen 280 shown in FIG 29. Clicking on the preview order button 305 opens the Understanding Margin screen 310 (FIG 31), which describes in words the transaction being proposed by the customer and which enables the customer to indicate that the customer understands he or she is using margin by selecting that he or she understands 311 or not 312. After selecting one of the two options 311, 312 and clicking on the continue button 313, the preview order screen 320 (FIG 32) is shown indicating the buy amount 321, and the target leverage 323. The user can modify the trade preferences (e.g., trade type, order type, cancel order limit and target leverage) by clicking on the change preferences button 324. Upon clicking on the leverage details button 322 the leverage details screen 330 (FIG 33) is displayed showing the new margin percentage (which in this example is shown as 50.00%), which displays the buy amount 331, the buy using cash amount 332, the buy using margin amount 333, the total buy amount 334, the target margin 335, and the current margin 336. The remaining part of the process remains as described previously when confirming the order.

User Interface for Opening Margin Account

[0086] Turning to FIG 34, shown therein is the process 340 for opening a margin account. The intermediary step 342 for determining whether the user wishes to add margin to his or her account is added to the normal step 341 for opening a margin account. If the user responds no 344, the process terminates. If the user selects to add margin 343 a special margin email is sent to the user to inform the user of all of the intricacies of margin trading using the system. The process begins with the screen 350 shown in FIG 35, which includes the selections to allow margin 351 or not.

[0087] FIG 36 shows the process 360 for adding an additional account to an existing user's account(s). The user opens the open another account page 361 and chooses an account type 362. If the account type does not permit margin, e.g., a 401(k) account, the user is informed that the account type does not permit margin 364. If the type does permit margin, the system defaults yes on the money fund page 363. Again, the process 360 starts with the screen 370 shown in FIG 37, which enables the user to select using margin 371 or not.

[0088] FIG 38 shows the process 380 for modifying one's margin profile. Starting from the My Accounts screen 381, the user opens the My Profile screen 382 and selects the option to change the margin setting at the account level 383. The user can add margin access 384, remove margin access 385 or avoid creating a margin account altogether 386. If any account is in a margin call, however, the system restricts the customer from adding margin to another account.

[0089] FIG 39 shows an account information screen 390 for a customer. Clicking on the add margin link opens the screen 400 shown in FIG 40, which informs the user that

margin is currently not authorized for the given account, but enabling them to open the margin access screen 410 (FIG 41) by clicking on the margin access button 401. Upon confirming that the user wishes to add margin by clicking on the YES button 411, the user is enabled to add margin.

[0090] FIG 42 shows the process 420 for editing one's margin profile. The dashed blocks 424, 426 are steps not selected in this example. Starting with the My Accounts screen 421, opening the My Profile screen 422, and selecting change margin setting 423. In this case, no margin account is created 425.

[0091] FIG 43 shows the process 430 for removing margin access from one's margin profile. The dashed blocks 434, 436 are steps not selected in this example. Starting with the My Accounts screen 431, opening the My Profile screen 432, and selecting change margin setting 433. The user is then able to remove the margin access 435. Selecting remove margin from screen 440 of FIG 44 enables the user to open screen 450 of FIG 45, in which the user can select to not allow margin for this account 451.

[0092] FIG 46 shows the process 460 for add margin access to one's profile. Starting with the My Account screen 461, the user selects My Profile 462, authorizes access 463, and grants access 464, which in turn adds margin language in margin enabled account. FIG 47 shows the grant access screen 470.

[0093] FIG 48 shows the process 480 for viewing the account summary. Starting with the My Accounts screen 481, selecting to view Account Summary 482, the user can view the available margin 483, move cash to pay the margin balance 484 and confirm these instructions 485. Fig 49 shows the account summary screen 490 with margin balance (e.g., \$5000). FIG 50 shows the view summary screen 500, which shows the

margin balance 501, the amount available for borrowing 502, the buying power 503, the total margin balance 504 and the total value 505.

[0094] FIG 51 shows the pay outstanding margin screen 510, which shows the outstanding margin balance 511, the current available cash 512, and a field 513 in which the user can enter the amount by which to reduce the margin balance and click on the continue button 514 to proceed. FIG 52 shows the screen 520 indicating the results of the user's selections in FIG 51, which screen 520 shows the new outstanding margin balance 521, the total margin balance 522 (for all accounts). To proceed, the user clicks on the continue button 523.

[0095] FIG 54 shows the process 540 for viewing the Margin and Folio summary. Starting with the My Accounts screen 541, selecting to view Folio Summary 542, the user can view the available margin 543, move cash to pay the margin balance 544 and confirm these instructions 545. Fig 55 shows the folio summary screen 550 with outstanding margin balance (e.g., \$15,000). Screen 560 in FIG 56 shows the current market value of the folio with the outstanding margin balance (current 561, and previous close 562). A link 563 to reduce margin balance is provided on screen 560, which link 563 opens screen 570 of FIG 57, which shows the current margin balance of this folio 571, the available cash and a field 572 into which the user can input the amount by which to reduce the outstanding margin balance. Clicking on the continue button 573 takes the user to screen 580 of FIG 58, which describes in words the user's selections indicating the amount used to reduce the margin balance 581, the resulting margin balance for this folio 582, and the total margin balance for all account 583. Clicking on the continue button 584 implements these instructions.

[0096] FIG 59 shows the process 590 for viewing/changing the proportion and Margin. Starting with the My Accounts screen 591, selecting to view Proportions 592, the user can select to not change the proportions 593, or to change the proportions 594. If changing the proportions, the user is informed that subsequent trades are made, the underlying risk will be changed.

[0097] FIG 60 shows the process 600 for resubmitting a margin order or for obtaining a margin order status. If the user wishes to cancel an order created using the margin slider 601, the user selects resubmit order 602, which opens a jump page indicating to the user that the user will be take to the margin slider page 603, which allows the user to select whether to return to the leverage slider and adjust, if desired or necessary, 605 or not 604 and place order as is. FIG 61 shows an order status screen 610, which shows a trade with a margin purchase 611.

Summary

[0098] Although various embodiments are specifically illustrated and described herein, it will be appreciated that modifications and variations of the invention are covered by the above teachings and within the purview of the appended claims without departing from the spirit and intended scope of the invention. For example, while several of the predetermined investment portfolios are discussed, other predetermined investment portfolios will suffice without departing from the scope of the present invention. Moreover, while specific less risky investment vehicles, such as cash reserves, are discussed, other less risky investment vehicles will suffice to implement the embodiments described herein. These examples should not be interpreted to limit the modifications and

variations of the invention covered by the claims but are merely illustrative of possible variations.